Exhibit A
Dutch Bill Fish Barrier Elimination Project
Statement of Work

Under direction of the Department of Fish and Game, and under the following conditions and terms, the Goldridge Resource Conservation District herein after called the Grantee will:

Conduct work on Dutch Bill Creek approximately 5.4 miles upstream of the Russian River at Rio Nido and 15.9 miles upstream of the Pacific Ocean at Jenner. The project is located in Township 7 South, Range 4 West, Section 27, 7n, 10w of the Camp Meeker 7.5 Minute U.S.G.S. Quadrangle, 38°25'28.94" north latitude, and 122°57'28.87" west longitude

Improve fish passage for steelhead rainbow trout and Coho in Dutch Bill Creek tributary to the Russian River in Sonoma County. The grantee is proposing the complete removal of a summer dam and the construction of an instream project to eliminate the 8' vertical jump at the culvert outlet. Boulder weirs will also be installed downstream of the culvert to diversify stream flow and to recruit spawning gravel. The rock weirs will also create step pools to facilitate fish passage and act as grade control. Baffles will be placed in the culvert to mimic the natural roughness found in stream beds and to allow upstream fish migration.

Additional project objectives are to provide community access and recreation within the creek area. The existing park and picnic area will be restored through minor grading and native plantings. Native plantings will also benefit creek productivity through leaf litter. When fully established, the revegetation component of the project will provide shade and shelter cover for salmonids. Since the project has full public access, it can be used for both demonstration and educational purposes. The objective of the project is to improve access to approximately 3.5 additional miles of spawning habitat for adult salmonids and rearing habitat for juvenile salmonids

Task 1: Culvert Retrofit and Downstream Restoration
The project will be accomplished by installing six rock weirs to raise the channel bed downstream of the culvert over a distance of 130'. The weirs will be spaced at intervals of twenty feet, with 1'profile drops. The weirs are designed to create step pool conditions. Each boulder weir will have a low flow notch 18" wide and 1' deep and will slope up at 10% toward the banks. The profile slope of the creek increases to 5 percent approximately 130' downstream of the end of the project reach. Three concrete weirs, or baffles, will be placed in the bottom of the culvert to enhance fish passage through the culvert a concrete cutoff wall is proposed to prevent scour beneath the culvert after removal of the concrete apron.

- Produce engineered plans for equipment access, weir and baffle placement, to be submitted to the DFG Grant Manager and fish passage engineer prior to project commencement. The plans will include details of construction scaled drawings..
- Move approx. 100 cubic yards of stream bed materials to establish a base for the weirs.
- Construct 6-1ft boulder weirs over 130 lft of downstream channel below the culvert, and construct 3 concrete baffles inside the culvert to establish a low flow channel inside the culvert.
- Remove existing concrete apron and segmented concrete wall and properly dispose of rubble
- Implement plans for listed aquatic species removal, water diversion and traffic detour.
- Implement 1 acre of erosion control measures to mitigate construction impacts and erosion..
- Restore any stream banks disturbed by equipment access,demolition and construction activities.

Task 2: Flashboard Dam abutment Removal

The concrete abutments forming this temporary structure will be removed using a concrete saw and jackhammer to break into manageable pieces. Small amounts of concrete dust will be generated by the deconstruction of the dam, but all concrete, even the dust, will be cleaned up and will be temporarily stored in a construction staging area near the site, then hauled to a suitable offsite disposal area. The channel will be re-graded to a more natural and stable slope. A gentle meander bend will be constructed with new habitat structures, such as woody debris and rock boulders

- Produce engineered plans for the abutment removal to be submitted to the DFG Grant Manager and fish passage engineer prior to project commencement. The plans will include details of equipment access, demolition and construction scaled drawings
- Grading of 2500 cubic yards of stream channel profile.
- Implement plans for listed aquatic species removal, water diversion and traffic detour.
- 255 tons of boulder bank protection
- the installation of 4 large woody debris structures
- Storage site location for concrete.demolition
- Removal approximately 475 yards of concrete rubble from the work site.
- After dam deconstruction, 2,000 sq ft of erosion control, in the form of re-vegetation seeding, mulching, and erosion control fabric, will be installed in areas that have been disturbed by the project. All bare and/or disturbed mineral slopes will be treated with permanent erosion control measures

Task 3: Water Diversion

A temporary screened water diversion will be installed up stream of the construction area to divert stream flow around the construction site. Summer flows will be very small, if

not completely dry. Regardless, a cofferdam will remain in place and be fully functional until the construction is complete. The cofferdam will be made of clean gravel and covered with Visqueen to minimize water seepage into the construction area

- The flow diversion structures will be removed as soon as possible in a manner that will allow flow to resume with the least disturbance to the substrate. Cofferdams will be removed so surface elevations of water impounded above the cofferdam will not be reduced at a rate greater than 1 inch per hour.
- In the event that the creek has higher than average summer base flows, the work areas may need to be periodically pumped dry of seepage. If this occurs, water seepage will be pumped upslope to a flat area away from the stream channel and dispersed with sprinklers.
- Pumps will be placed in flat areas, away from the stream channel. Pumps will be secured by tying off to a tree or secure structure to prevent movement during vibration.

1.The Grantee shall notify the Grant Manager a minimum of five working days before any fish bearing stream reaches are dewatered and the stream flow diverted. The notification will provide a reasonable time for Department personnel to supervise the implementation of the water diversion plan and oversee the safe removal and relocation of salmonids and other aquatic species from the project area. If the project requires dewatering of the site, and the relocation of salmonids, the Grantee will implement the following measures to minimize harm and mortality to listed salmonids:

- Fish relocation and dewatering activities shall only occur between June 15 and October 31 of each year.
- The Grantee shall minimize the amount of wetted stream channel dewatered at each individual project site to the fullest extent possible.
- All electrofishing shall be performed by a qualified fisheries biologist and conducted according to the National Marine Fisheries Service, *Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act*, June 2000.
- The Grantee will provide fish relocation data to the Grant Manager on a form provided by the Department of Fish and Game.
- Additional measures to minimize injury and mortality of salmonids during fish relocation and dewatering activities shall be implemented as described in Part IX, pages 52 and 53 of the *California Salmonid Stream Habitat Restoration Manual.*

6. All habitat improvements will follow techniques described in the Third Edition, January 1998, of the California Salmonid Stream Habitat Restoration Manual, Flosi et al. and the California Salmonid Stream Restoration Manual, Third Edition, Volume II, Part XI, January 2004.

7. Upon completion of the project, the Grantee shall submit two hard copies of a final written report and one electronic, *Microsoft Word* compatible, copy on 3.5 inch floppy disk(s) or CD. If the project is not completed in the current year, the

Grantee will submit a summary of the completed portion no later than December 31 and again each year until completed. The report shall include, but not necessarily be limited to the following information:

- Grant number
- Project name
- Geographic area (e.g., watershed name)
- Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map
- Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon)
- Project start and end dates and the number of person hours expended
- Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service)
- Expected benefits to anadromous salmonids from the project
- Labeled before and after photographs of any restoration activities and techniques
- Specific project access using public and private roads and trails, with landowner name and address
- Complete as built project description
- Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics (HI, HB)

Habitat Projects: (all)

- Identify the watershed/sub-basin plan or assessment in which the project is identified as a priority.
- Name the priority habitat limiting factors identified in that plan that are addressed by the project
- Type of monitoring included in the project
- Design spec achieved
- Fish movement/abundance
- Number of stream miles treated/affected by the project within the project boundaries.

Fish Passage Improvement Projects (FL, HB)

- Number of blockages removed or made passable
- Number of miles made accessible to salmonids

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
Possible species within the Camp Meeker and surrounding quads for Dutch Bill Creek Fish Passage Barrier Elimination.

	Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1	American badger *Taxidea taxus*	AMAJF04010			G5	S4	SC
2	Baker's goldfields *Lasthenia californica ssp. bakeri*	PDAST5L0C4			G3TH	SH	1B.2
3	Baker's larkspur *Delphinium bakeri*	PDRAN0B050	Endangered	Endangered	G1	S1.1	1B.1
4	Baker's manzanita *Arctostaphylos bakeri ssp. bakeri*	PDERI04221		Rare	G2T2	S2.1	1B.1
5	Baker's navarretia *Navarretia leucocephala ssp. bakeri*	PDPLM0C0E1			G4T2	S2.1	1B.1
6	Blasdale's bent grass *Agrostis blasdalei*	PMPOA04060			G2	S2.2	1B.2
7	Blennosperma vernal pool andrenid bee *Andrena blennospermatis*	IIHYM35030			G2	S2	
8	Burke's goldfields *Lasthenia burkei*	PDAST5L010	Endangered	Endangered	G1	S1.1	1B.1
9	California beaked-rush *Rhynchospora californica*	PMCYP0N060			G1	S1.1	1B.1
10	California freshwater shrimp *Syncaris pacifica*	ICMAL27010	Endangered	Endangered	G1	S1	
11	California linderiella *Linderiella occidentalis*	ICBRA06010			G3	S2S3	
12	California red-legged frog *Rana aurora draytonii*	AAABH01022	Threatened		G4T2T3	S2S3	SC
13	California tiger salamander *Ambystoma californiense*	AAAAA01180	Threatened		G2G3	S2S3	SC
14	Coastal Brackish Marsh	CTT52200CA			G2	S2.1	
15	Coastal Terrace Prairie	CTT41100CA			G2	S2.1	
16	Coastal and Valley Freshwater Marsh	CTT52410CA			G3	S2.1	
17	Contra Costa goldfields *Lasthenia conjugens*	PDAST5L040	Endangered		G1	S1.1	1B.1
18	Crystal Springs lessingia *Lessingia arachnoidea*	PDAST5S0C0			G1	S1.2	1B.2
19	Franciscan onion *Allium peninsulare var. franciscanum*	PMLIL021R1			G5T2	S2.2	1B.2
20	Franciscan thistle *Cirsium andrewsii*	PDAST2E050			G2	S2.2	1B.2
21	Giuliani's dubiraphian riffle beetle *Dubiraphia giulianii*	IICOL5A020			G1G3	S1S3	
22	Greene's narrow-leaved daisy *Erigeron angustatus*	PDAST3M5G0			G1	S1.2?	1B.2
23	Gualala roach *Lavinia symmetricus parvipinnis*	AFCJB19025			G5T1T2	S1S2	SC
24	Hickman's cinquefoil *Potentilla hickmanii*	PDROS1B0U0	Endangered	Endangered	G1	S1.1	1B.1

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25	Jepson's leptosiphon *Leptosiphon jepsonii*	PDPLM09140			G2	S2.2	1B.2
26	Marin hesperian *Vespericola marinensis*	IMGASA4140			G2G3	S2S3	
27	Marin knotweed *Polygonum marinense*	PDPGN0L1C0			G1Q	S1.1	3.1
28	Myrtle's silverspot *Speyeria zerene myrtleae*	IILEPJ6089	Endangered		G5T1	S1	
29	Napa false indigo *Amorpha californica var. napensis*	PDFAB08012			G4T2	S2.2	1B.2
30	Navarro roach *Lavinia symmetricus navarroensis*	AFCJB19023			G5T1T2	S1S2	SC
31	North Coast semaphore grass *Pleuropogon hooverianus*	PMPOA4Y070		Threatened	G1	S1.1	1B.1
32	Northern Coastal Salt Marsh	CTT52110CA			G3	S3.2	
33	Northern Hardpan Vernal Pool	CTT44110CA			G3	S3.1	
34	Northern Vernal Pool	CTT44100CA			G2	S2.1	
35	Pennell's bird's-beak *Cordylanthus tenuis ssp. capillaris*	PDSCR0J0S2	Endangered	Rare	G4G5T1	S1.2	1B.2
36	Pitkin Marsh Indian paintbrush *Castilleja uliginosa*	PDSCR0D380		Endangered	GXQ	SX	1A
37	Pitkin Marsh lily *Lilium pardalinum ssp. pitkinense*	PMLIL1A0H3	Endangered	Endangered	G5T1	S1.1	1B.1
38	Point Reyes bent grass *Agrostis clivicola var. punta-reyesensis*	PMPOA040A2			G3?T1Q	S1.2	
39	Point Reyes bird's-beak *Cordylanthus maritimus ssp. palustris*	PDSCR0J0C3			G4?T2	S2.2	1B.2
40	Point Reyes checkerbloom *Sidalcea calycosa ssp. rhizomata*	PDMAL11012			G5T2	S2.2	1B.2
41	Point Reyes horkelia *Horkelia marinensis*	PDROS0W0B0			G2	S2.2	1B.2
42	Rincon Ridge ceanothus *Ceanothus confusus*	PDRHA04220			G2	S2.2	1B.1
43	Rincon Ridge manzanita *Arctostaphylos stanfordiana ssp. decumbens*	PDERI041G4			G3T1	S1.1	1B.1
44	Russian River tule perch *Hysterocarpus traski pomo*	AFCQK02011			G5T2	S2	SC
45	San Bruno elfin butterfly *Callophrys mossii bayensis*	IILEPE2202	Endangered		G4T1	S1	
46	San Francisco Bay spineflower *Chorizanthe cuspidata var. cuspidata*	PDPGN04081			G2T2	S2.2	1B.2
47	San Francisco owl's-clover *Triphysaria floribunda*	PDSCR2T010			G2	S2.2	1B.2
48	Santa Cruz clover *Trifolium buckwestiorum*	PDFAB402W0			G1	S1.1	1B.1

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49	Sebastopol meadowfoam *Limnanthes vinculans*	PDLIM02090	Endangered	Endangered	G2	S2.1	1B.1
50	Sonoma alopecurus *Alopecurus aequalis var. sonomensis*	PMPOA07012	Endangered		G5T1Q	S1.1	1B.1
51	Sonoma spineflower *Chorizanthe valida*	PDPGN040V0	Endangered	Endangered	G1	S1.1	1B.1
52	Sonoma sunshine *Blennosperma bakeri*	PDAST1A010	Endangered	Endangered	G1	S1.2	1B.1
53	Sonoma tree vole *Arborimus pomo*	AMAFF23030			G3	S3	SC
54	Sonoma white sedge *Carex albida*	PMCYP030D0	Endangered	Endangered	G1	S1.1	1B.1
55	The Cedars fairy-lantern *Calochortus raichei*	PMLIL0D1L0			G1	S1.2	1B.2
56	The Cedars manzanita *Arctostaphylos bakeri ssp. sublaevis*	PDERI04222		Rare	G2T2	S2.2	1B.2
57	Thurber's reed grass *Calamagrostis crassiglumis*	PMPOA17070			G3Q	S1.2	2.1
58	Tidestrom's lupine *Lupinus tidestromii*	PDFAB2B3Y0	Endangered	Endangered	G2	S2.1	1B.1
59	Townsend's big-eared bat *Corynorhinus townsendii*	AMACC08010			G4	S2S3	SC
60	Vine Hill ceanothus *Ceanothus foliosus var. vineatus*	PDRHA040D6			G3T1	S1?	1B.1
61	Vine Hill clarkia *Clarkia imbricata*	PDONA050K0	Endangered	Endangered	G1	S1.1	1B.1
62	Vine Hill manzanita *Arctostaphylos densiflora*	PDERI040C0		Endangered	G1	S1.1	1B.1
63	bank swallow *Riparia riparia*	ABPAU08010		Threatened	G5	S2S3	
64	black swift *Cypseloides niger*	ABNUA01010			G4	S2	SC
65	bristly sedge *Carex comosa*	PMCYP032Y0			G5	S2?	2.1
66	brownish beaked-rush *Rhynchospora capitellata*	PMCYP0N080			G5	S2S3	2.2
67	bumblebee scarab beetle *Lichnanthe ursina*	IICOL67020			G2	S2	
68	burrowing owl *Athene cunicularia*	ABNSB10010			G4	S2	SC
69	coastal bluff morning-glory *Calystegia purpurata ssp. saxicola*	PDCON040D2			G4T2	S2.2	1B.2
70	coho salmon - central California coast ESU *Oncorhynchus kisutch*	AFCHA02034	Endangered	Endangered	G4	S2?	
71	dark-eyed gilia *Gilia millefoliata*	PDPLM04130			G2	S2.2	1B.2

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72	dune gilia *Gilia capitata ssp. chamissonis*	PDPLM040B3			G5T2	S2.1	1B.1
73	dwarf downingia *Downingia pusilla*	PDCAM060C0			G3	S3.1	2.2
74	dwarf soaproot *Chlorogalum pomeridianum var. minus*	PMLIL0G042			G5T1	S1.2	1B.2
75	foothill yellow-legged frog *Rana boylii*	AAABH01050			G3	S2S3	SC
76	fragrant fritillary *Fritillaria liliacea*	PMLIL0V0C0			G2	S2.2	1B.2
77	fringed myotis *Myotis thysanodes*	AMACC01090			G4G5	S4	
78	globose dune beetle *Coelus globosus*	IICOL4A010			G1	S1	
79	great blue heron *Ardea herodias*	ABNGA04010			G5	S4	
80	hoary bat *Lasiurus cinereus*	AMACC05030			G5	S4?	
81	holly-leaved ceanothus *Ceanothus purpureus*	PDRHA04160			G2	S2.2	1B.2
82	legenere *Legenere limosa*	PDCAM0C010			G2	S2.2	1B.1
83	long-beard lichen *Usnea longissima*	NLLEC5P420			G4	S4.2	
84	long-eared myotis *Myotis evotis*	AMACC01070			G5	S4?	
85	many-flowered navarretia *Navarretia leucocephala ssp. plieantha*	PDPLM0C0E5	Endangered	Endangered	G4T1	S1.2	1B.2
86	marsh microseris *Microseris paludosa*	PDAST6E0D0			G2	S2.2	1B.2
87	mimic tryonia (=California brackishwater snail) *Tryonia imitator*	IMGASJ7040			G2G3	S2S3	
88	monarch butterfly *Danaus plexippus*	IILEPP2010			G5	S3	
89	narrow-anthered California brodiaea *Brodiaea californica var. leptandra*	PMLIL0C022			G4?T2T3	S2S3.2	1B.2
90	northwestern pond turtle *Actinemys marmorata marmorata*	ARAAD02031			G3G4T3	S3	SC
91	osprey *Pandion haliaetus*	ABNKC01010			G5	S3	
92	pallid bat *Antrozous pallidus*	AMACC10010			G5	S3	SC
93	perennial goldfields *Lasthenia californica ssp. macrantha*	PDAST5L0C5			G3T2	S2.2	1B.2
94	pink sand-verbena *Abronia umbellata ssp. breviflora*	PDNYC010N2			G4G5T2	S2.1	1B.1

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95	purple-stemmed checkerbloom *Sidalcea malviflora ssp. purpurea*	PDMAL110FL			G5T2	S2.2	1B.2
96	rhinoceros auklet *Cerorhinca monocerata*	ABNNN11010			G5	S3	
97	robust monardella *Monardella villosa ssp. globosa*	PDLAM180P7			G5T2	S2.2	1B.2
98	rose leptosiphon *Leptosiphon rosaceus*	PDPLM09180			G1	S1.1	1B.1
99	round-headed beaked-rush *Rhynchospora globularis var. globularis*	PMCYP0N0W1			G5?T5?	S1.1	2.1
100	saline clover *Trifolium depauperatum var. hydrophilum*	PDFAB400R5			G5T2?	S2.2?	1B.2
101	secund jewel-flower *Streptanthus glandulosus var. hoffmanii*	PDBRA2G0J4			G4TH	SH	1B.3
102	see individual subspecies! *Streptanthus morrisonii*	PDBRA2G0S0			G2	S2	
103	serpentine daisy *Erigeron serpentinus*	PDAST3M5M0			G1	S1.3	1B.3
104	short-leaved evax *Hesperevax sparsiflora var. brevifolia*	PDASTE5011			G4T3	S3.2	2.2
105	swamp harebell *Campanula californica*	PDCAM02060			G3	S3.2	1B.2
106	thamnolia lichen *Thamnolia vermicularis*	NLTES43860			G3G5	S1.1	
107	thin-lobed horkelia *Horkelia tenuiloba*	PDROS0W0E0			G2	S2.2	1B.2
108	tidewater goby *Eucyclogobius newberryi*	AFCQN04010	Endangered		G3	S2S3	SC
109	tricolored blackbird *Agelaius tricolor*	ABPBXB0020			G2G3	S2	SC
110	tufted puffin *Fratercula cirrhata*	ABNNN12010			G5	S2	SC
111	two-fork clover *Trifolium amoenum*	PDFAB40040	Endangered		G1	S1.1	1B.1
112	western leatherwood *Dirca occidentalis*	PDTHY03010			G2G3	S2S3	1B.2
113	western snowy plover *Charadrius alexandrinus nivosus*	ABNNB03031	Threatened		G4T3	S2	SC
114	western yellow-billed cuckoo *Coccyzus americanus occidentalis*	ABNRB02022	Candidate	Endangered	G5T3Q	S1	
115	white beaked-rush *Rhynchospora alba*	PMCYP0N010			G5	S3.2	2.2
116	white-flowered rein orchid *Piperia candida*	PMORC1X050			G3	S3.2	1B.2
117	white-tailed kite *Elanus leucurus*	ABNKC06010			G5	S3	

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118	woolly-headed gilia *Gilia capitata ssp. tomentosa*	PDPLM040B9			G5T1	S1.1	1B.1
119	woolly-headed spineflower *Chorizanthe cuspidata var. villosa*	PDPGN04082			G2T1	S1.2	1B.2
120	yellow larkspur *Delphinium luteum*	PDRAN0B0Z0	Endangered	Rare	G1	S1.1	1B.1